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EXAMINER	
DOTE, JANIS L	
ART UNIT	**PAPER NUMBER**
1756	

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Please find below and/or attached an Office communication concerning this application or proceeding.

C

Office Action Summary	Application No.	Applicant(s)	
	10/734,942	OSHIBA ET AL.	
	Examiner	Art Unit	
	Janis L. Dote	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 8-19* is/are pending in the application.

4a) Of the above claim(s) *18 and 19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 8-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-5 and 8-19* are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/505,459.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Applicants' election with traverse of Group I, claims 1-5 and 8-17, in the reply filed on Oct. 2, 2006, is acknowledged. The traversal is on the ground(s) that the search of two additional claims, i.e., claims 18 and 19, would not be a serious burden to search and examine with the claims of Group I. This is not found persuasive. As set forth in the restriction requirement, the examiner has provided reasons as to why the toner in Group I is patentably distinct from the methods of making in Groups II and III. Applicants have not specifically indicated the errors in the restriction or specifically articulated why the reasons for restriction are inadequate. In addition, applicants have not provided any reasons why the toner in Group I and the methods of making in Groups II and III are not patentably distinct, or stated on the record that the inventions of the three groups are obvious variations of each other.

Moreover, as set forth in the restriction requirement, the search for the toner in Group I and the search for the methods of making in Groups II and III are not co-extensive. A search for the toner does not require a search in the method subclasses 430/137.17 and 137.18. Nor does a search for the methods of making in Groups II and III require a search in the toner subclass 430/108.4 or the method of using subclass 420/120. The

distinct searches and the distinct issues of patentability establish the burden on the Office.

The requirement is still deemed proper and is therefore made FINAL.

2. In view of the teachings in the instant specification, the examiner notes the term "element having an isolation ratio of not more than 10% by number" as recited in instant claim 1 refers to the particles comprising the element that are not incorporated in the toner particles during the formation of the toner particles. In other words, the particles comprising the element are not an additive externally added to the preformed toner particles. See the originally filed specification, page 9, line 4, to page 10, line 24; page 12, line 8, to page 13, line 3; page 16, lines 20-21, page 19, line 17, to page 20, lines 4; and inventive toner 6 in amended Tables 1 and 2 filed on Aug. 11, 2006. Inventive toner 6 of the originally filed specification comprises colored toner particles, which comprise a Cu phthalocyanine pigment, and an externally added titanium oxide particles. See amended Table 1 filed on Aug. 11, 2006. Titanium is a Group 4B element of the fourth periodic of the long periodic table, which is within the description of specified elements in the originally filed

specification in the paragraph bridging pages 3 and 4. However, amended Table 2 filed on Aug. 11, 2006, at page 38 of the specification, reports an isolated ratio for the element Cu in Toner 6, not for the element Ti.

If applicants do not agree with the above interpretation, they should clearly so state and indicate where there is antecedent basis for their definition in the originally filed specification.

3. The replacement paragraph at page 8, line 12, of the specification, filed on Aug. 11, 2006, changes the definition of isolation ratio from the ratio (% by number) of "the number of synchronous light emission particles to the sum of the number of synchronous light emission particles and non-synchronous light emission particles" to -- the number of non-synchronous light emission particles to the sum of the number of synchronous light emission particles and non-synchronous light emission particles --. Applicants in the response filed on Feb. 25, 2005, state that the isolation ratio now disclosed in the replacement paragraph is consistent with the description of its measurement in the paragraph bridging pages 35 and 36 of the specification.

The examiner notes that the term "non-synchronous light emission particles" is defined as particles "exhibiting [light] emission from the element but not exhibiting [light] emission from carbon," as recited in instant claim 1. Also see the originally filed specification at page 8, lines 8-11 and 16-20. The originally filed specification in the paragraph bridging pages 5 and 6, teaches that the "'element' can be contained in the toner, for example, in the form of a pigment, charge controlling agent, or metal oxide, although [it] may be contained in a form of elemental metal." The term "synchronous light emission particles" is defined as "particles exhibiting [light] emission from the element and exhibiting [light] emission from carbon," as recited in instant claim 1. Also see the originally filed specification, page 8, lines 5-8 and 12-15. In light of the originally filed specification, the particles that emit light emission from carbon and light emission from the element, as recited in instant claim 1, are toner particles. The particles that emit light emission from the element, but not from carbon, as recited in instant claim 1, are particles comprising the element, such as the element itself, e.g., elemental iron, or a pigment, charge controlling agent, or metal oxide, that are not incorporated in the toner particles during the formation of the toner particles. See the specification,

page 9, line 4, to page 10, line 24; page 12, line 8, to page 13, line 3; page 16, lines 20-21; and page 19, line 5, to page 20, line 4; the paragraph bridging pages 11 and 12; and example 6 in Table 1. Accordingly, the isolation ratio refers to the percentage of the number of particles that emit light only from the element that are not incorporated in the toner particles during the formation of the toner particles relative to the sum of the number of those particles and the number of toner particles that emit light from carbon and from the element.

If applicants do not agree with the above interpretation, they should clearly so state and indicate where there is antecedent basis for their definition in the originally filed specification.

4. The disclosure is objected to because of the following informalities:

The specification at page 36, lines 11-12, refers to examples 5 to 16 in amended Table 2 filed on Aug. 11, 2006. The specification at page 38, three lines from the bottom of the page, refers to examples 1 to 16 in amended Table 2. However, amended Tables 1 and 2 filed on Aug. 11, 2006, do not report the

compositions of examples 5 and 7-15 or the results for examples 5 and 7-15, respectively.

Appropriate correction is required.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f), or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-4 and 8-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,376,493 (Kobayashi), as evidenced by ACS on STN File Reg. No. 147-14-8 and applicants' admission in Table 2 at page 38, and the accompanying text of the instant specification (applicants' admission I).

Kobayashi discloses a toner comprising toner particles that comprise a binder resin and 40 parts by weight of C.I. Pigment Blue 15, which is identified as copper phthalocyanine (see ACS File Reg. No. 147-14-8). See Example 3 at col. 12. Copper phthalocyanine has a molecular weight of 576.08. The amount the copper phthalocyanine present in the toner is 6.06 wt% based on the weight of the toner. The copper in the toner particles is about 0.67 wt% based on the total weight of the toner particles (i.e., (6.06 wt% x ((63.54 atomic weight of Cu)/(576.08 molecular weight of Cu phthalocyanine)) x 100). The amount of

copper phthalocyanine in the toner is determined from the information provided in Example 3. The amount of 0.67 wt% is within the amount of "not less than 0.1 wt%" recited in instant claim 1. The toner is used with a carrier. Col. 10, lines 45-46. Kobayashi further discloses that said toner can be used in a process comprising the steps recited in instant claim 11. See col. 11, lines 55-57; Fig. 1; and col. 10, lines 46-66.

Kobayashi does not disclose that its toner comprises copper in an isolation ratio as recited in the instant claims. The instant specification discloses that toners that comprise an element as recited in instant claim 1 in an isolation ratio as recited in the instant claims, have stable chargeability after 10,000 copies, and provide toner images without fog even after 100,000 copies. See Table 2 at page 38, and the accompanying text. After 50,000 copies, Kobayashi's toner of Example 3 exhibits stable chargeability and provides toner images free from fog. See Example 3 and Table 2 at col. 12. Because the Kobayashi toner expressly meets the compositional limitations of the instant claims, but for the isolation ratio recited in the instant claims, and because that toner has the properties sought by applicants, it is reasonable to presume that the Kobayashi toner comprises the element copper in an isolation ratio as

recited in the instant claims. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Instant claim 8 requires that the toner of claim 1 be obtained by emulsion polymerization. Thus, the toner is described in product-by-process format. Kobayashi does not exemplify a toner obtained by emulsion polymerization as recited in instant claim 8. Kobayashi's toner is obtained by the steps of: mixing in a solvent, a binder resin soluble in the solvent and particles of the colorant copper phthalocyanine that is insoluble therein; dispersing the particles of the colorant in the binding resin to obtain a dispersed mixture; removing the solvent from the dispersed mixture to obtain a colorant-binding resin composition; mixing said composition with a binder resin and a charge controlling agent; melt-kneading the mixture; and forming toner particles from the melt-kneaded mixture. See Example 3. As discussed above, the Kobayashi toner has the properties sought by applicants, and appears to comprise the element copper in an isolation ratio as recited in the instant claims. Thus, Kobayashi's process appears to produce a toner that is the same or similar to that made by the emulsion polymerization process recited in the instant claim. The burden is on applicants to prove otherwise. In re Marosi, 218 USPQ 289

(Fed. Cir. 1983); In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985); MPEP 2113.

9. Claims 1-4 and 8-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,856,055 (Ugai), as evidenced by applicants' admissions at page 3, lines 2-7, and in Table 2 at page 38, and the accompanying text, of the instant specification (applicants' admission II).

Ugai discloses a developer comprising a carrier and a toner, which comprises toner particles comprising a binder resin, a colorant, azo iron complex (1), and an aluminum salicylic compound. See col. 22, lines 41-49, and Toners Q and R in Tables 2 and 3 at col. 26. Azo iron complex (1) at col. 8 has a calculated molecular weight of 904.6. The amount of iron in the toner particles of Toners Q and R is about 0.14 wt% and 0.22 wt%, respectively, based on the total weight of the toner particles. The amounts of iron are determined from the information provided in Table 3. The amounts of 0.14 wt% and 0.22 wt% are within the amount of "not less than 0.1 wt%" recited in instant claim 1. Toners Q and R are obtained by an emulsion polymerization method as recited in instant claim 8. Ugai further discloses that said toners can be used in a process

comprising the steps recited in instant claim 11. See Fig. 3, and col. 20, line 50, to col. 21, line 18.

Ugai does not disclose that Toners Q and R comprise the element iron in an isolation ratio as recited in the instant claims. The instant specification discloses that toners that comprise an element as recited in instant claim 1 in an isolation ratio as recited in the instant claims, have stable chargeability after 10,000 copies, and provide toner images without fog even after 100,000 copies. See Table 2 at page 38, and the accompanying text. The instant specification at page 3, lines 2-7, also discloses that said toners provide stable images for many runs. The Ugai Toners Q and R exhibit stable chargeability after 50,000 copies, and provide high quality toner images after 30,000 copies. Toners Q and R also provide images having no or little fog under high temperature and high humidity conditions. See Toners Q and R in Table 5 at cols. 27 and 28, and the accompanying text. The Ugai toners expressly meet the compositional limitations of the instant claims, but for the isolation ratio of iron recited in the instant claims. The Ugai toners are made by a process within the scope of that recited in instant claim 8, and have the properties sought by applicants. Therefore, it is reasonable to presume that the Ugai toners comprise the element iron in an isolation ratio as

recited in the instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

10. Claims 1-3, 8-12, 15, and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,645,967 (Sato), as evidenced by applicants' admissions at page 7, lines 7-10, and in Table 2 at page 38, and the accompanying text (applicants' admission III).

Sato discloses an electrophotographic developer comprising a carrier and a toner that comprises toner particles comprising a binder resin, carbon black, and a charge controlling agent composition comprising a charge controlling chromium salicylic complex and carbon in the weight ratio of 70 to 30. See Composition 30 in Table 4 at col. 19, Example 23 in Table 8 at cols. 23-24; col. 14, lines 11-14; and col. 12, lines 6-18. The chromium salicylic complex has a calculated molecular weight of 584. The amount of chromium in the toner particles is about 0.4 wt% based on the total weight of the toner particles (i.e., (2 parts by weight of charge controlling agent composition/100 parts by weight of toner) x (ratio of chromium complex to carbon 70/30) x ((52 atomic weight of Cr)/(584 molecular weight of Cr complex)) x 100). The amount of chromium

is determined from the information provided in Table 4; col. 14, lines 11-14; and col. 12, lines 6-14. The amount of 0.4 wt% is within the amount of "not less than 0.1 wt%" recited in instant claim 1. Sato further discloses that said toner can be used in a process comprising the steps recited in instant claim 11. See col. 1, lines 14-18; and col. 12, lines 18-29.

Sato does not disclose that its toner comprises chromium in an isolation ratio as recited in instant claims 1 and 17. The instant specification discloses that toners that comprise an element as recited in instant claim 1 in an isolation ratio as recited in instant claim 1, have stable chargeability after 10,000 copies, and provide toner images without fog even after 100,000 copies. See Table 2 at page 38, and the accompanying text. The instant specification at page 7, lines 7-10, states that "[w]hen the [isolation] ratio of the specified element is less than 0.1% by number, the electricity of the toner is lowered since the electricity giving ability of the specified element is become insufficient." The Sato toner exhibits an initial chargeability of -15.3 μC/g and after 50,000 copies, a chargeability of -15.1 μC/g. After 50,000 copies, the Sato toner in Example 23 exhibits stable chargeability and provides high quality toner images free from fog. See Example 23 in Table 8. The charge quantities of -15.3 and -15.1 μC/g do not

appear to be "insufficient." Because the Sato toner meets the compositional limitations of the instant claims, but for the isolation ratio recited in the instant claims, and has the properties sought by applicants, it is reasonable to presume that the Sato toner comprises the element chromium in an isolation ratio as recited in the instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

Instant claim 8 requires that the toner of claim 1 be obtained by emulsion polymerization. Thus, the toner is described in product-by-process format. Sato does not exemplify a toner obtained by emulsion polymerization as recited in instant claim 8. The Sato toner is obtained by the steps of: mixing the chromium salicylic complex with carbon black; mixing the mixture with a binder resin, a colorant, and wax; melt-kneading the mixture; and forming toner particles from the melt-kneaded mixture. Col. 14, lines 10-14, referring to col. 12, lines 6-17 and col. 12, line 60, to col. 13, line 3. As discussed above, Sato's toner has the properties sought by applicants, and appears to comprise the element chromium in an isolation ratio as recited in the instant claims. Thus, the Sato process appears to produce a toner that is the same or similar to that made by the emulsion polymerization process

recited in the instant claim. The burden is on applicants to prove otherwise. Marosi, supra; Thorpe, supra; MPEP 2113.

11. Claims 1-3, 5, 8-12, 15, and 17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,238,836 B1 (Nakamura), as evidenced by applicants' admissions at page 3, lines 7-10, and page 7, lines 7-10, and in Table 2 at page 38, and the accompanying text (applicants' admission IV).

Nakamura discloses a developer comprising a magnetic carrier and a black toner, which comprises toner particles comprising a binder resin, a black colorant, and a molybdenum-containing quaternary ammonium compound. See, for example, embodiment 6 at col. 25 and in Table 3, compound 2-1 at col. 13, and resin synthesis example 2 at col. 20 and in Table 1. The molybdenum containing quaternary ammonium compound has a calculated molecular weight of 2936. The amount of the molybdenum compound present in the toner particles is 1.43 wt%. The amount of molybdenum in the toner particles of embodiment 6 is about 0.37 wt% based on the total weight of the toner particles. The amount of molybdenum is determined from the information provided in Table 3. The amount of 0.37 wt% is within the amount of "not less than 0.1 wt%" recited in instant

claim 1. Nakamura further discloses that said toners can be used in a process comprising the steps recited in instant claim 11. Col. 18, lines 61-65, and col. 27, lines 27-36.

Nakamura does not disclose that the toner comprises the element molybdenum in an isolation ratio as recited in instant claims 1 and 17. The instant specification discloses that toners that comprise an element as recited in instant claim 1 in an isolation ratio as recited in the instant claims, have stable chargeability after 10,000 copies, and provide toner images without fog even after 100,000 copies. See Table 2 at page 38, and the accompanying text. The specification also discloses that said toners provide stable images for many runs. Page 3, lines 2-7. The instant specification at page 7, lines 7-10, states that "[w]hen the [isolation] ratio of the specified element is less than 0.1% by number, the electricity of the toner is lowered since the electricity giving ability of the specified element is become insufficient." The Nakamura toner in embodiment 6 exhibits an initial chargeability of 18 μC/g and after 50,000 copies, a chargeability of 19 μC/g. The Nakamura toner exhibits stable chargeability after 50,000 copies, and provides high quality toner images with less than 0.01 fog after 50,000 copies. See embodiment 6 in Table 5, and the accompanying text. The charge quantities of 18 and 19 μC/g do

not appear to be "insufficient." Because the Nakamura toner expressly meets the compositional limitations of the instant claims, but for the isolation ratio recited in the instant claims, and has the properties sought by applicants, it is reasonable to presume that Nakamura's toners comprise the element molybdenum in an isolation ratio as recited in the instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

Instant claim 8 requires that the toner of claim 1 be obtained by emulsion polymerization. Thus, the toner is described in product-by-process format. Nakamura does not exemplify a toner obtained by emulsion polymerization as recited in instant claim 8. The Nakamura toner is obtained by the steps of: mixing the molybdenum-containing quaternary ammonium compound, the colorant, the binder resin, and wax; melt-kneading the mixture; and forming toner particles from the melt-kneaded mixture. Col. 25, lines 4-20, referring to col. 31-35. As discussed above, Nakamura's toner has the properties sought by applicants, and appears to comprise the element molybdenum in an isolation ratio as recited in the instant claims. Accordingly, the Nakamura process appears to produce a toner that is the same or similar to that made by the emulsion polymerization process

recited in the instant claim. The burden is on applicants to prove otherwise. Marosi, supra; Thorpe, supra; MPEP 2113.

12. Claims 1-4, 8-12, and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,672,454 (Sasaki'454), as evidenced by ACS on STN File Registry No. 1317-61-9.

Sasaki'454 discloses a toner comprising encapsulated toner particles. The toner particles comprise cores comprising a binder resin and triiron tetraoxide magnetic powder covered with a polymeric shell. See example 1 at cols. 14-15. Triiron tetraoxide is also known as magnetite. See ACS File Registry No. 1317-61-9. The triiron tetraoxide powder is present in the toner particles in an amount of about 42.1 parts by weight per 100 parts by weight of particles. The amount of Fe in the toner particles is about 30 wt% based on the total weight of the toner particles (i.e., (42.1 parts by weight/100 parts by weight) × ((3 × 55.85 atomic weight of Fe)/(231.54 formula weight of triiron tetraoxide)) × 100). The amount of triiron tetraoxide is determined from the information provided in example 1. The amount of about 30 wt% is within the range of "not less than 0.1 wt%" recited in instant claim 1. The toner can be used

alone as a mono-component developer, or with a carrier to form a two-component developer. Col. 13, lines 3-4. The toner in example 1 is obtained by an emulsion polymerization method as recited in instant claim 8. Sasaki'454 further discloses that said toner can be used in a process comprising the steps recited in instant claim 11. See col. 13, lines 12-33, and col. 18, lines 20-30.

Sasaki'454 does not disclose that its toner comprises iron in an isolation ratio as recited in the instant claims. However, Sasaki'454 teaches that there is no magnetic powder present on the surface of its toner particles as determined by TEM. Col. 15, lines 21-22, and Fig. 2. Because the Sasaki'454 toner expressly meets the compositional limitations of the instant claims and has no magnetic powder present on the surface of the toner particles (i.e., no loose magnetic powder), and because the toner is made by a process within the scope of that recited in instant claim 8, it is reasonable to presume that Sasaki'454's toner comprises the element iron in an isolation ratio as recited in the instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

13. Claims 1-4, 8-13, and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35

U.S.C. 103(a) as obvious over US 5,763,130 (Sasaki'130), as evidenced by applicants' admission III.

Sasaki'130 discloses a toner comprising encapsulated toner particles. The toner particles comprise cores comprising a binder resin and Cu-phthalocyanine covered with an amorphous polyester shell. See example 2 at col. 19. Cu-phthalocyanine has a molecular weight of 576.08. Cu-phthalocyanine is present in the toner in an amount of 0.98 wt%. The amount of copper present in the toner is about 0.11 wt% based on the total weight of the toner (i.e., (0.98 wt% × (63.54 atomic weight of Cu)/(576 molecular weight of Cu-phthalocyanine)). The amount of Cu-phthalocyanine is determined from the information provided in example 2. The amount of 0.11 wt% is within the range of "not less than 0.1 wt%" recited in instant claim 1. The toner can be used with a magnetic carrier. Col. 23, lines 51-56. The toner in example 2 is obtained by an emulsion polymerization method as recited in instant claim 8. Sasaki'130 further discloses that said toner can be used in a process comprising the steps recited in instant claim 11. See col. 1, lines 20-32, and col. 24, lines 26-33.

Sasaki'130 does not disclose that its toner comprises copper in an isolation ratio as recited in the instant claims. The instant specification discloses that toners that comprise an

element as recited in instant claim 1 in an isolation ratio as recited in the instant claims, have stable chargeability after 10,000 copies, and provide toner images without fog even after 100,000 copies. See Table 2 at page 38, and the accompanying text. The instant specification at page 7, lines 7-10, states that "[w]hen the [isolation] ratio of the specified element is less than 0.1% by number, the electricity of the toner is lowered since the electricity giving ability of the specified element is become insufficient." The Sasaki'130 toner in example 2 exhibits an initial chargeability of -24.6 μC/g and after 50,000 copies, a chargeability of -24.4 μC/g. The Sasaki'130 toner exhibits stable chargeability after 50,000 copies, and provides toner images free from fog after 50,000 copies. See example 2 in Table 3 at col. 24. The charge quantities of -24.6 and -24.4 μC/g do not appear to be "insufficient." Because the Sasaki'130 toner expressly meets the compositional limitations of the instant claims, but for the isolation ratio recited in the instant claims, and has the properties sought by applicants, and because it is made by a process within the scope of that recited in instant claim 8, it is reasonable to presume that the Sasaki'130 toner comprises the element copper in an isolation ratio as recited in the instant

claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

14. Claims 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,702,987 (Fukuchi) combined with Nakamura, as evidenced by applicants' admission IV.

According to Fukuchi, non-contact developing is well known in the electrophotographic arts. Fukuchi discloses that "[i]n a color reproducing method in which toner images of plural colors are formed and superimposed on an image retainer (i.e., photosensitive member [i.e., a photoreceptor]), non-contact developer method is appropriate, in which the development is conducted by keeping a magnetic brush [of a magnetic developer] out of contact with the image retainer so that the toner image or images previously developed may not be broken. The non-contact development method is a method in which an a.c. and/or d.c. bias is applied to the developer feeding member to form an alternating electric field in a developing region, while the developer on its member being kept away from the image retainer, thereby to float the toner and attach on the electrostatic latent image." Col. 1, lines 48-61.

Fukuchi teaches a particular multi-color image forming method comprising the following steps in order: (1) forming a

first electrostatic latent image on the surface of a photosensitive drum, i.e., a photoreceptor, corresponding to a first color; (2) reversal developing the latent image in a non-contact manner with a two-component developer comprising a first color toner to form a first toner image; (3) forming a second electrostatic latent image on the photosensitive member corresponding to a second color; (4) reversal developing the latent image in a non-contact manner with a two-component developer comprising a second color toner to form a second toner image, which is superimposed on the first toner image; (5) repeating steps (3) and (4) to form a superimposed third black toner image on the photosensitive drum; (6) transferring the three superimposed toner images to a receiving member; and (7) fixing the transferred toner images to the receiving member. Fig. 10 and col. 10, line 22, to col. 12, line 10. The Fukuchi image forming process meets the process steps recited in instant claims 11 and 16, but for the use of the particular toner recited in the instant claims.

Nakamura, as evidenced by applicants' admission IV teaches a two-component developer comprising a magnetic carrier and a black toner, as described in paragraph 11 above, which is incorporated herein by reference. For the reasons discussed in paragraph 11 above, it is reasonable to presume that the

Nakamura black toner comprises the element molybdenum in an isolation ratio as recited in instant claims 11 and 16.

According to Nakamura, its toner has superior fixation properties and anti-offset properties. The toner exhibits stable charge behavior even during continuous printing and has superior durability. The toner also provides good, high quality images without fogging. Col. 4, lines 32-38, and Tables 4 and 5, embodiment 6, and the accompanying text.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Nakamura, to use the two-component developer taught by Nakamura as the two-component developer comprising a magnetic carrier and a black toner in the image forming method disclosed by Fukuchi. That person would have had a reasonable expectation of successfully obtaining a multi-color imaging forming method that provides a multi-color image that comprises a good, high quality black image without fog superimposed on the first and second toner images.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

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JLD
Dec. 3, 2006

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PRIMARY EXAMINER
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